Shallow Draft Bass Boat

Craft Print Project No. 11



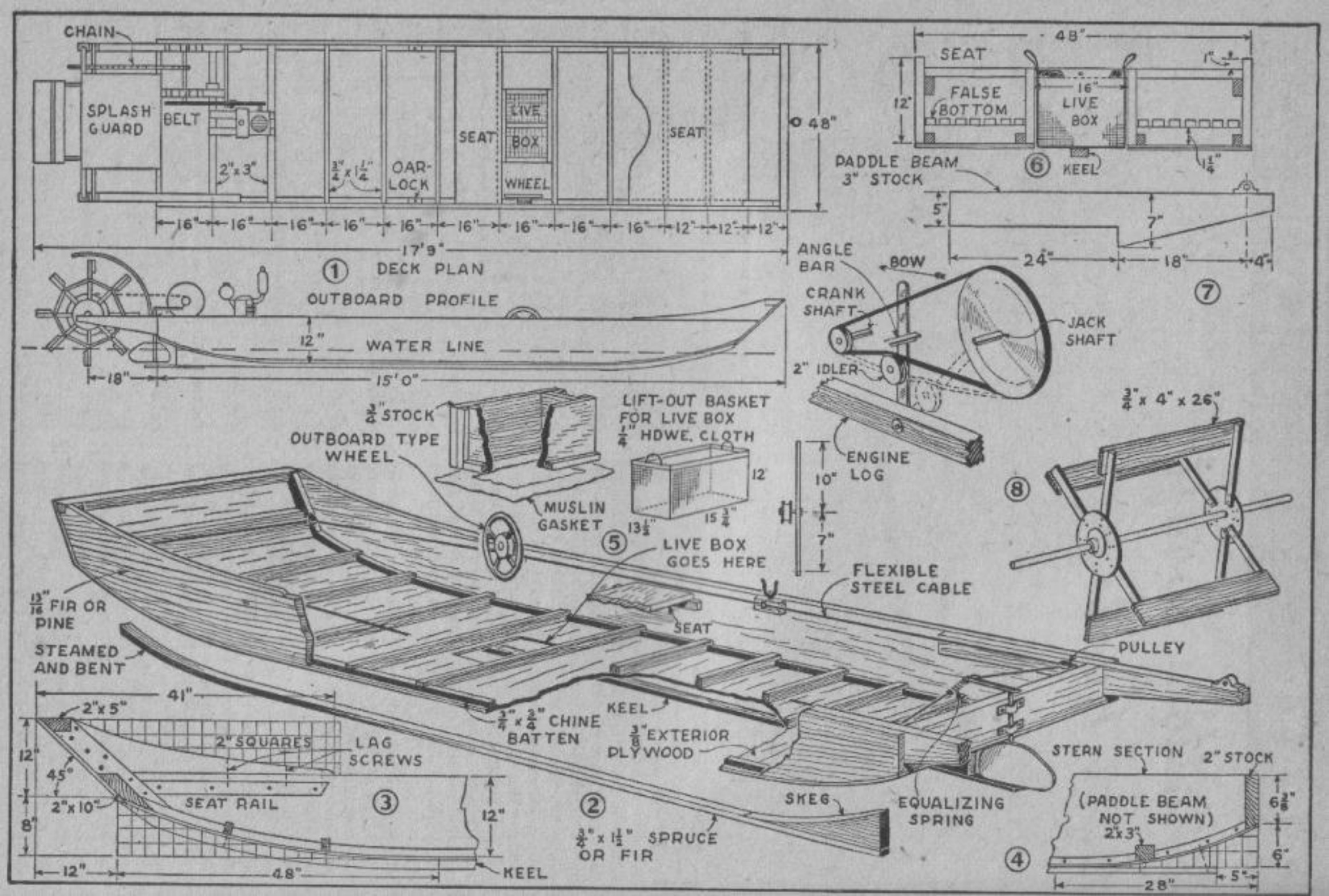
By HI SIBLEY

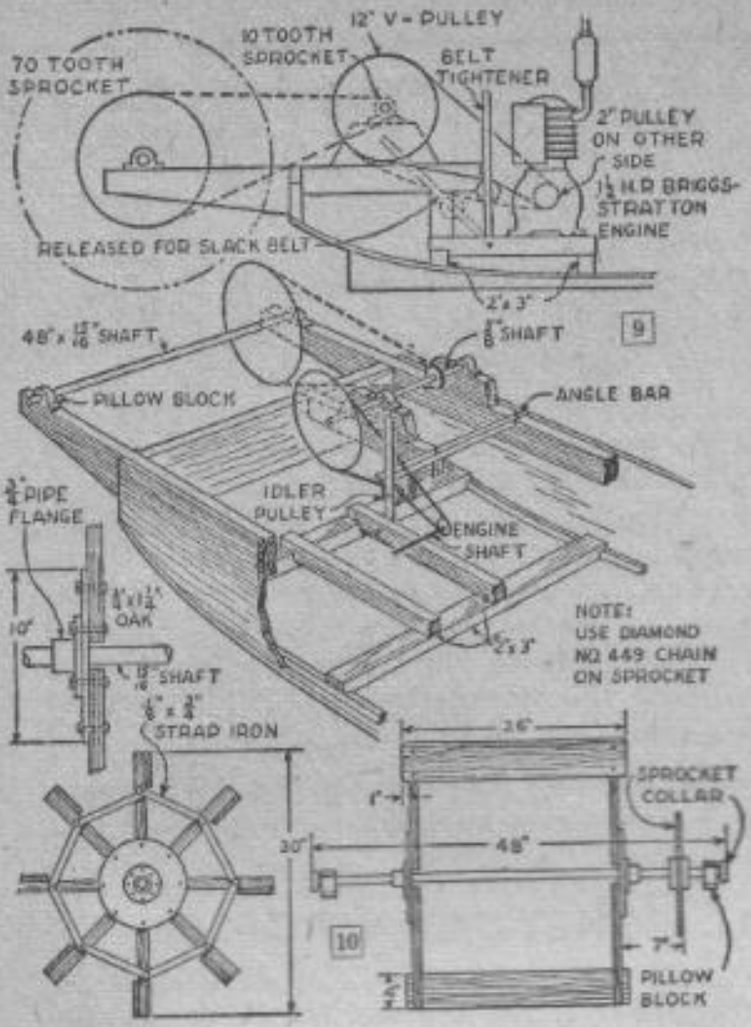
HERE is an ideal craft to reach the best bass fishing areas—where they feed in shallow water among the spatter-docks. There's no propeller to foul in water weeds and, with a flat bottom and a 4 ft. beam along its entire length, the draft is at a minimum. The little air-cooled engine is simple to install (Fig. 9) and it has paddle-wheel propulsion; no shaft log is required. With ⅜ in. exterior marine plywood (Weldwood or Super Hardbord) in a single panel on the bottom, you only need to calk along the chine lines. If full length panel of 4 x 15 ft. plywood is not available for the bottom, use one 8 ft. and one 7 ft. panel, joined under a cross member (Fig. 14).

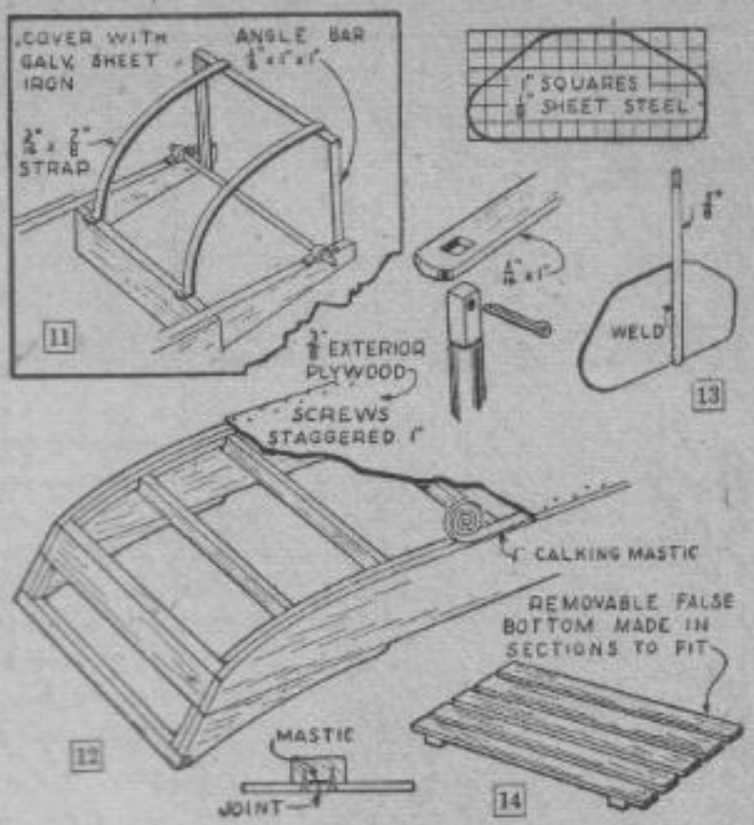
Deck plan and outboard profile are shown in Fig. 1. Note built-in live box just forward of the amidships seat, and the big seat in the bow, large enough to stand on when casting. False bottom is not shown in deck plan, but should cover, in sections, the entire area. Fig. 2 gives details of hull construction. Sides are $^{13}/_{16}$ in. Douglas fir or pine, with ¾ x ¾ in. chine battens screwed along lower edges and bent up with the curves at the ends as shown. Apply Weldwood marine glue to all contacting surfaces and use only galvanized (or brass) screws and hardware. An added piece is installed on each side for the upsweep of the bow, and crossbeams on the bottom are all ¾ in. material except the two 2 x 3 in. pieces at the stern which are to carry the engine logs. Cut a rectangular opening for the live box just forward of the seat. The keel is one continuous piece, steamed and bent up at

MATERIALS LIST—BASS BOAT

	Douglas Fir or Pine
Sides	2 pcs. 15/16"x12"x15'
Chines	2 pcs. ¾"x¾"x15'
Crossbeams	8 pcs. ¾"x1¼"x48", 2 pcs. 2"x3"x48"
Bow Pieces	1 pc. 2"x4"x48", 1 pc. 2"x10"x48"
Transom	1 pc. 2"x7"x48"
Seat	1 pc. ¾"x11"x48" (midships), 2 pcs. ¾"x9"x48" (bow)
Wheel Beams	2 pcs. 3"x7"x42"
Keel	1 pc. ¾"x1½"x15'
Skeg	1 pc. 2"x5"x18"
Live Box	5 lineal ft. ¾"x12" fir or pine 38"x46" hardware cloth, ¼" mesh
Bottom	1 panel ⅜"x48"x15' (or 1—4'x8', 1—4'x7') exterior plywood (Weldwood or Super-Harbord)
Steering	1 outboard type wheel 38 ft. flexible steel cable, 1 tension spring, 4 pulleys, 8 screw eyes
Rudder	1 shaft ⅝"x16", 2⅝" gudgeons 1 pc. strap iron 3/16"x1"x9" 1 pc. steel ⅛"x6"x13"
Paddle Wheel	16 spokes ¾"x1¼"x14" 8 blades ¾"x4"x26" 2 steel disks 3/16"x10" 16 pcs. strap iron ⅛"x¾" 2¾" pipe flanges 32 carriage bolts 1¼"x⅜" 1 shaft 15/16"x48" 2 pillow blocks and bolts 1—70 tooth sprocket, ⅝" pitch, 15/16" bore Diamond Chain No. 499
Jack Shaft	1 shaft ⅝"x18", 2—⅝" bearings 1—10-t sprocket Diamond No. 499 1—12" Vee pulley
Belt Tightener	1—2" flat pulley with flanges 1 strap iron lever, ¼"x1"x8"
Engine	Briggs-Stratton 1.55 HP Model N
Hardware	4 gross No. 7 screws 1" galvanized (bottom) 1 gross No. 8 screws 1½" 12—No. 10, 2" keel 8 carriage bolts, ⅜"x3½" paddle beams
Mastic	40 ft. 1" in roll
Misc.	Weldwood marine glue, paint, screws as required


CHAIN
SPLASH GUARD
BELT
2"x3"
3/4"x1 1/4"
OAR-LOCK
SEAT
LIVE BOX
WHEEL
SEAT
48"
16" 16" 16" 16" 16" 16" 16" 16" 16" 12" 12" 12"
17'9"
1 DECK PLAN
OUTBOARD PROFILE
12"
WATER LINE
18"
15'0"
48"
SEAT
FALSE BOTTOM
16"
LIVE BOX
12"
1 1/4"
6 KEEL
PADDLE BEAM 3" STOCK
5"
7"
24"
18"
4"
7
ANGLE BAR
BOW
CRANK SHAFT
JACK SHAFT
2" IDLER
ENGINE
LOG
3/4" STOCK
OUTBOARD TYPE WHEEL
MUSLIN GASKET
LIFT-OUT BASKET FOR LIVE BOX
1/4" HDWE. CLOTH
12"
13 1/2"
15 3/4"
5 LIVE BOX GOES HERE
10"
7"
8
3/4" x 4" x 26"
13/16" FIR OR PINE
STEAMED AND BENT
SEAT
FLEXIBLE STEEL CABLE
PULLEY
41"
2"x5"
12"
45°
2"x10"
8"
2" SQUARES
LAG SCREWS
SEAT RAIL
3
12"
12"
48"
KEEL
3/4"x 3/4" CHINE BATTEN
KEEL
3/8" EXTERIOR PLYWOOD
2
3/4"x 1 1/2" SPRUCE OR FIR
SKEG
EQUALIZING SPRING
STERN SECTION
2" STOCK
(PADDLE BEAM NOT SHOWN)
2"x3"
6 3/8"
6"
4
28"
5"





the forward end and fitted with a skeg piece aft. It is screwed from the underside up through bottom and cross beams. Beams for paddle wheel are set into the transom, as shown.

For steering, carry a flexible steel cable all around the gunwales, through pulleys and screw-eyes, and over the drum of an outboard-type wheel. To keep it taut, put an equalizing spring in at the tiller as shown. Oarlocks are provided, and a 10 ft. pole will come in handy for backing off sandbars. Put a steel pin and ferrule on one end of this pole.

A sectional view of the bow shows how the 2 in. pieces are installed (Fig. 3) and the stern (Fig. 4). Dotted lines indicate screws. Live box must be neatly fitted and is screwed down over a muslin gasket and marine glue. The screws are put in through the bottom from the underside, and top is screwed to the seat. Make a lift-out basket of ¼ in. mesh hardware cloth (Fig. 5). Fig. 6 is a section through the live box which also shows how false bottom rests on cross-beams. The paddle beams (Fig. 7) are dressed down from 3 x 8 in. stock and a pillow-block or other suitable bearing, mounted as indicated. Construction of paddle wheel is partially shown in Fig. 8 and more completely detailed in Fig. 10.

Powering the Craft

For the power plant, any small engine of 1½ *hp* will do if installed as in Fig. 9. For the 30 in. paddle wheel considerable reduction is necessary, hence the jack-shaft with a 12 in. pulley is employed. Pulley is mounted on 2 x 3 in. pieces, with an angle-bar brace. You can obtain universal bearings for the ⅝ in. shaft at hardware stores or mail order houses (Sears), and chain and sprockets specified from Diamond Chain Co. Inc., 400-S Kentucky Ave., Indianapolis, Indiana.

In order to run the engine independently of the paddle, install an idler pulley as a belt tightener. When lever is pulled forward the idler brings the belt up snug against the drive pulleys; pushed back, belt runs slack and the paddle stops. The idler should have a flat perimeter with flanges, as it contacts the flat outer side of the belt. Also it should be provided with an oil cup, if possible. A bronze bushing will reduce wear. The lever is held forward by an extension of the angle bar as shown.

The eight-blade paddle wheel (Fig. 10) has oak spokes which are secured to steel disks with carriage bolts; the disk is welded to a pipe flange which in turn is welded to a 15/16 in. cold-rolled steel shaft. Blades are ¾ x 4 x 26 in. Douglas fir, pine or other suitable material, also installed on the spokes with carriage bolts. Fig. 11 shows the frame for supporting the splash guard, to which the galvanized sheet is riveted.

An upside-down view of bottom (Fig. 12) shows how calking mastic is unrolled along the chine before screwing on the bottom. Before doing this, plane chine batten and edge of side absolutely flush to form a watertight joint when plywood is installed. Stagger screws as shown. Make the rudder of ⅛ in. (or heavier) sheet steel with a ⅝ in. post welded or bolted to it. Square the top of the post to receive the strap-iron tiller with cotter-pin over it.

● Craft Prints in enlarged size for building bass boats are available at 50c each. Order by number, enclosing remittance (No C.O.D.'s) from SCIENCE AND MECHANICS, 450 East Ohio Street, Craft Print Dept., Chicago 11, Illinois.

